

What is claimed is:

1. A plurality of safety lighting structures for a human powered vehicle having a frame with attached wheels having tires including sidewalls, said safety lighting structures comprising:

5           a) at least one photo-luminescent section and at least one reflective section being located on at least one of said wheels; and

            b) a light source being attachable to said human powered vehicle to direct light against said photo-luminescent sections.

10           2. The safety lighting structures of claim 1, wherein said at least one photo-luminescent section is located on at least one of said tire sidewalls.

            3. The safety lighting structures of claim 1, wherein said at least one reflective section is located on at least one of said tire sidewalls.

15           4. The safety lighting structures of claim 2, wherein said light source is mounted to said human powered vehicle frame to direct light against said at least one photo-luminescent section as said at least one wheel rotates.

20           5. The safety lighting structures of claim 1, wherein said at least one wheel is at least partially covered with a photo-luminescent material selected from the group consisting of photo-luminescent stickers, paints, injection molded rubber, plastics and resins and combinations thereof.

6. The safety lighting structures of claim 1, wherein said photo-luminescent material is a phosphorescent compound comprising Zinc Sulfide mixed with an epoxy binder.

7. The safety lighting structures of claim 1, wherein said photo-luminescent material is molded into said bicycle tires.

8. The safety lighting structures of claim 1, wherein said reflective sections are reflective stickers.

9. The safety lighting structures of claim 1, wherein said light source is selected from the group consisting of at least one incandescent lamp, at least one fluorescent lamp and at least one light emitting diode and combinations thereof.

10. The safety lighting structures of claim 1, wherein the light emitted by said light source is substantially within the UV band of the electromagnetic spectrum.

11. The safety lighting structures of claim 1, wherein said human powered vehicle is a bicycle having a front fork on which said light source is attached to direct light against said photo-luminescent sections.

12. A human powered vehicle tire having safety lighting structures, said tire comprising:

a) sidewalls;

b) at least one photo-luminescent section being located on said sidewalls; and

c) at least one reflective section being located on said sidewalls.

13. The human powered vehicle tire of claim 12, wherein said tire is attached to a wheel attached to the frame of a human powered vehicle, and wherein a light source is  
5 attached to said human powered vehicle frame to direct light against said tire at least one photo-luminescent section.

14. The human powered vehicle tire of claim 12, wherein said at least one photo-luminescent section and said at least one reflective section are molded into said tire sidewalls.  
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15. The human powered vehicle tire of claim 12, wherein said a least one photo-luminescent section and said at least one reflective section are located on said tire sidewalls and form adjacent rings that follow the circumference of said tire.

15 16. The human powered vehicle tire of claim 12, wherein said at least one reflective section is made of light reflective particles that are vulcanized into said tire.

17. The human powered vehicle tire of claim 12, wherein said at least one photo-luminescent section is made of phosphorescent glow pigmented particles.  
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18. A safety lighting structure for a bicycle wheel having a rim, said safety lighting structure comprising:

- a) an electroluminescent wire attached around said wheel rim, said electroluminescent wire comprising a first electrical conductor coated with an electro-reactive substance that is wrapped along its length by a second smaller conductor; and
- b) an electrical power source for energizing said electroluminescent wire.

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19. The safety lighting structure of claim 18, wherein a clear plastic tube protects said electroluminescent wire from the outdoors environment.

20. A lighting structure for a human powered vehicle comprising a wheel having a translucent tire with an inside coated with a photo-luminescent material, said tire being inflated with a low-grade radioactive gas that reacts with said photo-luminescent material to cause it to glow.

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